

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see page 10-12 of the remarks filed March 25, 2011, with respect to the 35 U.S.C. 102(e) rejection of claims 1-4, 22, 25, 52, 56, 60 and 62-66 have been fully considered and are persuasive. The 35 U.S.C. 102(e) rejection of claims 1-4, 22, 25, 52, 56, 60 and 62-66 has been withdrawn.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Drawings

3. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures (note that the applicant's specification on page 3 refers to figure 1 as prior art).

Claim 60: On line 1, insert "**wireless**" between "**a**" and "**medium**".

Allowable Subject Matter

4. Claims 1-4, 7, 13, 16, 19, 22, 25, 28, 31, 34, 37, 42, 44, 52, 56 and 60-66 allowed.

The following is an examiner's statement of reasons for allowance:

Regarding **claim 1**, Shvodian 7,088,702 discloses a method of medium access control in a communications network including at least one wireless device, comprising: dividing time into a sequence of at least one superframe comprising at least one beacon period and at least one data transmission period, said dynamic beacon period having a predetermined maximum length; beaconing by transmission of a beacon frame in a beacon slot by a wireless device in an awake state. Vasanen et al 7,333,460 discloses dynamically adjusting the beacon period in a wireless local area network (WLAN).

The instant invention discloses dividing time into a sequence of at least one superframe comprising **at least one dynamic beacon period** and at least one data transmission period, **said dynamic beacon period having a predetermined maximum length** and including a variable plurality of beacon slots; **beaconing by transmission of a beacon frame in a unique one of said plurality of beacon slots by every device in an awake state**, said beacon frame including information; and grouping said plurality of beacon slots into at least one contiguous dynamic beacon period, wherein **at least one free beacon slot of said at least one contiguous dynamic beacon period is determined based on beacons received from other devices and information included in said received beacons**. The above novel features in combination with other recited limitations of claim 1 are neither taught,

suggested, nor made obvious by Shvodian, Vasanen et al, or any other prior art of record. Claims 2-4, 7, 13, 16, 19, 22, 25, 28, 31, 34, 37, 42, 44, 52, 56, 62 and 63 are allowable by virtue of their dependency on claim 1.

Regarding **claim 60**, Shvodian 7,088,702 discloses a wireless device that manages beaconing over a medium in a distributed manner, comprising: an antenna for sending and receiving beacons over the wireless medium; a receiver coupled to the antenna to receive beacons transmitted over the wireless medium; a transmitter coupled to the antenna to transmit beacons over the wireless medium; a beacon processing module to process sent and received beacons for distributed beaconing management over the medium; a processor to divide time into a sequence of at least one superframe, each said superframe having a beacon period. Vasanen et al 7,333,460 discloses dynamically adjusting the beacon period in a wireless local area network (WLAN).

The instant invention discloses a processor to divide time into a sequence of at least one superframe, each said superframe having at least one dynamic beacon period having a dynamic length with a pre-determined upper bound and that includes a plurality of beacon slots, and coupled to: i. the transmitter and the receiver to send and receive, respectively, beacon frames during said at least one dynamic beacon period of the at least one superframe, ii. the beacon processing module to -manage dynamic beacon period format and length including dynamic determination of dynamic beacon period length, inclusion of a predetermined plurality of beacon slot types, recordation of beacon slot occupancy and implementation of beacon slot switches, format beacon

frames for transmission comprising each of the beacon slot types, such that the beacon frame announces a length of the beacon frame dynamically determined by the device, and format a beacon frame for transmission in the at least one beacon slot, that includes beacon slot occupancy information and beacon slot switch information. The above novel features in combination with other recited limitations of claim 60 are neither taught, suggested, nor made obvious by Shvodian, Vasanen et al, or any other prior art of record. Claims 61 and 64-66 are allowable by virtue of their dependency on claim 60.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kubler et al 6,944,446 discloses a system for dynamic time division multiple access to allow its proper functioning in a radio frequency or wireless network.

Tavli et al 7,411,919 discloses Multi-hop Time reservation using adaptive control for energy efficiency.

Kondylis et al 6,665,311 discloses a method and apparatus for adaptive bandwidth reservation in wireless Ad-Hoc networks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUMIDE T. AJIBADE AKONAI whose telephone number is (571)272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/OLUMIDE T AJIBADE-AKONAI/
Examiner, Art Unit 2617